

A
TREATISE
ON
MERCURY,
SHEWING

The Danger of taking it Crude
for all manner of Disorders, after the
present Fashion, from its Nature, its
manner of Operating in the human
Body, and Facts.

WITH SOME
REMARKS on the *antient Physician's Legacy*.

Navem agere ignarus timet, Abrotanum agro
Non audet nisi qui didicit, dare. *Hor. l. 2. Ep.*

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PREFACE.

IF Men were to search the whole *Dispensary*, they could not pitch upon a Drug more improper for a *Panacea*, or universal Medicine, than Mercury; it being very precarious in its Operation. The other powerful Medicines shew a manifest and present Effect; but this may, by slow Degrees, sap the very Foundation of Life, as I have made
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iv P R E F A C E.

appear in this Treatise; and therefore may be rank'd among the slow Poisons, if apply'd by an unskilful Hand.

My Design is not to derogate from the Virtues of Mercury; it is, by common Consent, reckon'd among the four Cardinal Medicines. I allow crude Mercury may do great Service in some Cases; and if I can but convince the Reader so far, that he may grant me, on the other hand, it may also do great Prejudice, if misapplied, I have my End.

Crude Mercury has been long deem'd as the ultimate Remedy in the Iliac Passion, vulgarly called the Twisting of the Guts. *Brassavolus*, *Matthiolus*, *Amatus Lusitanus*, *Hartmannus*, and others, were bold enough

PREFACE.

enough to recommend it to be given, a Scruple at a time, to Children for Worms, and to Women to hasten their Delivery, at a Time when the common Opinion was, that it acted by a certain occult deleterious Quality; but with these Restrictions, that it may hurt, when given in too great a Quantity, or when the Body abounds in bad Humors; and that it is less beneficial to bilious and melancholy, than phlegmatic Constitutions.

This being the Sense of those Authors who were professed Advocates for Crude Mercury, it is admirable, the Author of *the antient Physician's Legacy*, should presume to recommend it in various Complaints, without any Limita-

vi P R E F A C E.

tion, saying, *he never knew it to do any harm*: And, for ought I know, these very Words may have occasioned that many Persons, of both Sexes, have lately taken it for all kinds of Disorders. But how true these Words are, and what risque some run in the taking of it, I leave the Reader to judge.

If proper Observations had been made at the time when this Method of taking Crude Mercury was in fashion, in this Island, in the last Century, I am persuaded the Examples of those then hurt by it, would be sufficient to make People more wary at present. But lest this Fashion should do more Mischief, or be revived again at another Time, for want of due Observation, I am determined to go
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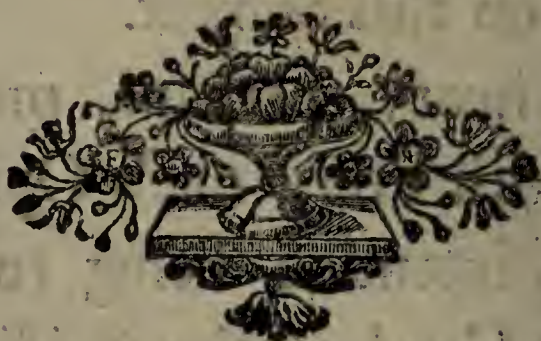
P R E F A C E. vii

on in collecting all the Cases I can, in order to set this Matter in a clear Light. And therefore I beg the Favour of all, who have the Welfare of the Public at heart, to send to the Publisher of this Pamphlet, the Cases where they have experienced either Service or Hurt from this Practice; which shall be acknowledg'd with Thanks, and inserted in a future Treatise I design on this Subject.

My Theory, perhaps, may not square with every one's Opinion: But my Intention being to promote the Good of the Public, an Allowance will, I hope, be made in my favour, since I am the first who have ventured upon this difficult Task; or if the Reader will but be so kind to suspend his
Judg-

viii PREFACE.

Judgment till he knows a better Solution for this Phænomenon, I promise in return not to continue obstinate in my present way of Thinking, if another can give a more probable Account of this Matter.



THE



A
TREATISE
ON
MERCURY, &c.

THE Public, as an ingenious Author observes, is the wisest and foolishest Thing in Nature; it is like a Body with many Heads, one of which making a great Bustle and Noise, all the rest stare that way.

This Sentence is daily verified in all Transactions of Life, but more especially in Fashions of Dresses; though a Fashion appears at first ridiculous, it soon becomes familiar, if countenanced by
B some

2 *The Use and Abuse*

some leading Person ; and the Prejudice against it is mitigated or quite abolished, by the Opinion we have of People's Understanding, which commonly is rated in Proportion to their Quality and Riches.

The Manner of Cloathing the Body being matter of no great Consequence, it may be, that Man suffers himself to be led away so easily, because he doth not give himself the Trouble to consider much about it. But it is very surprizing, that Fashions should likewise obtain in Things which touch the Welfare of Mankind in the tenderest Part, I mean Medicines.

The old Maxim, that what can do much good may also do much harm, seems to be quite forgot, else People would not take Mercury, one of the most powerful Medicines in Nature, almost for any Complaints, without considering Age, Sex, Constitution, present Situation of the Body, or all other Circumstances; it is a sufficient Inducement for many to follow this Practice;

ence, because it is such an easy Remedy, and some have found Benefit from it, or that it is now become fashionable. Thus Mercury reigns triumphant under the Character of a Panacea, or universal Medicine ; and the Public seem so zealous in recommending this Darling, that I expect it may soon be preferred by the fair Sex to their Closets as a choice Cordial.

I foresee many may have the less regard for the Contents of this Pamphlet, thinking it to be a Physician's Interest to write, right or wrong, against so beneficial a Medicine ; but to obviate this Prejudice, I assure the Reader, that the Benefit of the Public was my chief View, and therefore I crave his Patience till he has read the whole, by which Time I don't doubt he will be convinced, that I have good Reasons for saying, that this way of taking Mercury is a very dangerous practice.

It is a common Thing for People greatly to extol the Virtues of a new Medi-

cine, till Experience makes them wiser. But this cannot be said to be the present Case, for Mercury has been long in use, and its good and bad Qualities have been sufficiently discovered by Experience and the Fire.

This Mineral Fluid has been always found hurtful to the nervous System; which Consideration alone might be sufficient to warn People not to use it inconsiderately. But for farther Satisfaction, I shall canvass this Matter under the three following Heads, *viz.* 1. Shewing the Nature of Mercury. 2. Its manner of operating in Human Bodies. And, 3. Conclude with mentioning some Instances of its dreadful Effects.

Mercury is by most number'd amongst the Metals; the Character by which the Chymists express it is thus (☿) the round Circle in the middle, the Alchymists say, denotes, that its intrinsical Parts are Gold; the Semicircle on the Top signifies, that its outside appears like Silver; and the Cross at the bottom, that

a corrosive Substance is join'd with it, which two Principles being removed pure Gold will remain, but in a fluid State.

Next to Gold Mercury is the heaviest Metal, and the more 'tis freed from its heterogeneous Particles, the more ponderous it grows; a Heat not much more intense than that of boiling Water makes it fly away under the Appearance of Smoak; it is not malleable, but divisible into infinitely small spherical Particles, and incorporates very easily with Gold, Lead, Silver and Tin.

From its silver Colour, and conspicuous Mobility, it has been called by the Greeks *ὄρεαργυρον*, that is, *Argentum Aqueum*, or *Aqua Argentea*; and by the Latins, *Argentum vivum*, in English *Quicksilver*. The Name of Mercury is, perhaps, derived from its Agility, and different Shapes it is capable of, alluding to the Character of the Heathen Deity of that Name.

Mercury, according to the Alchymists, is the Proteus of Nature ; a Liquor which does not wet, a Water which doth not moisten the Hands, upon which Metals swim, like Wood upon Water, except Gold ; soft and flowing, yet dissolving the hardest Bodies. *Liquor non made-faciens, aqua manus non humectans, cui metalla supernatant, ut aquæ lignum, auro excepto, mollis & fluxilis, durissima tamen Corpora resolvens.* Mercury, they say, is the *primum Stamen* of all Metals ; therefore many have taken great pains to work upon it, in order to effect by its means the Transmutation of Metals. Some call the first Principles of all Metals Sal, Sulphur, and Mercury, which others express by the *Terms, Terra, Oleum, or Materia inflammabilis & aqua.* The Sal, they say, is the Body of the Metal, the Sulphur is the Principle which tinges, and the Mercury animates it, or acts in it, as the Spirit in the human Body. But as it is difficult to prove these *Principia* by manual Operation,

tion, or *à priori*, the gravest Writers on these Matters confine themselves to this, that the *prima materia* of all Metals is a subtile unctuous Fluid, which occasions a Consistence and Solidity, or Coagulation in some solid Body, acting in the Bowels of the Earth in the manner of a fixing Vapor. And that this Vapor or Spirit is of a sulphurous acid Nature, is proved from many Arguments; for almost all Minerals smell of Sulphur, and being put on the Fire exhale an acid Steam, not unlike that of common Sulphur, when burnt in the open Air. Besides, all Mines abound with sulphureous Steams in proportion to their Richness in Oar; and that their sulphureous Steams are diffused through the whole Globe, is plain from the surprizing subterraneous Phænomena, the burning Mountains, and the Earth-quakes, which cannot be well accounted for any otherwise.

The saline or earthy Particles in Mercury are of a very fine Texture, and on account of their Ponderosity have been
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thought by all Alchymists to come nearest the Purity of Gold. Its Sulphur is of an arsenical Nature, highly pernicious to the human Frame, and the mercurial or aqueous Particles so copious, that they preserve it in a fluid State; wherefore some have attempted, in order to make Mercury solid, and bring it to Maturity, as they express it, to fix it, by adding to it, Bodies abounding in sulphureous Particles, as *Lapis Calaminaris*, or *Radix Curcumæ*, which will bring Mercury into a hard Substance, tinging it of a yellow Colour; but when brought to Fusion again the Mercury flies away from his Confinement, and leaves a yellowish *Caput Mortuum* behind it. No Process is known that will fix this Proteus so as to indure the Fire; for let the Chymists torture him till he looks like a pale, white, green, yellow, red, or any other colour'd Calx or Earth, he may easily be reduced to his primitive running State again, as Mr. Boyle proves from numbers

less

less Processes, and all Chymists know. *Lewenboeck*, and others, who would rather trust to the Information of their Senses, have found by Inspection with their Microscopes, that though Mercury be tortured ever so much by Fire, or the Corrosiveness of Salts, its Particles always retain a spherical Figure. But *Cheyne* in his Essay on Fevers thinks, that Mercury may come to change its Sphericity, from the following Reason, that whenever the Gravity of mercurial Particles is equal to the Medium they are suspended in, they will receive the Figure the Motion of the Medium can imprint on them. That Mercury may be brought to this State, he proves, because by pounding Mercury in common Water its Weight diminishes, and the Water is tinged. 'Tis *Boerhave's* Opinion, that Mercury is composed of small Globules divisible *ad infinitum*, in which the chimerical Principles of *Aqua, Sal, & Oleum*, are so interwoven, that by no Art they can be separated from each other.

The two Principles however, which plainly discover themselves in Mercury, are Sulphur and Earth. That this Sulphur produces an arfenical or poisonous Effect, sufficiently appears from Experience. I do not however suppose any occult, deleterious Quality in it more than any other ; but as it is very subtile, and animated by the impelling Force of the small globular Particles of Mercury, these two Powers act in a compound Ratio of the Velocity of the Sulphur, and the Ponderosity of the spherical Particles of Mercury join'd together. This Phænomenon may *cæteris paribus* be compared to the Explosion of a Gun, and therefore the dismal Effects, from taking down by Inspiration the Fumes of Mercury, are easily accounted for, by any one who does but consider, that by means of the Lungs it will be convey'd into the Blood. Miners and Gilders are for this Reason plagued with many Distempers, as we shall have occasion to speak of them hereafter; I will only add, that from the Consequences

ces we may ascertain there is an arsenical Sulphur in Mercury.

A subtile Earth is also one of its constituent Parts, which though in so small a Quantity, that it may be carry'd into the Air by a very little Heat, deserves our Consideration, in as much as it in some measure counterpoises the great Portion of Sulphur; and as all Kinds of Salts act upon Mercury, the Chymists are puzzled what to make of it.

Be this as it will, it appears from these Premises, that the Activity of Mercury depends upon two Causes, *viz.* from its Sulphur and Pondus; upon which Principles I shall build my Method of Reasoning, not troubling my self about Terms.

Mercury is found in several Mines in *Germany, Bohemia, Hungary, and Italy.* Native Mercury, or that which is found separated from its Oar by Nature, is called Virgin Mercury; they purge it, by rubbing it with Salt and Vinegar, or straining it through Leather, but it is

commonly separated from native Cinna-
ber by Distillation; which is also the
Way of reviving it.

The Use of Mercury in Medicine was
first introduced by the *Arabians*, who
used it in the Itch and Leprosy; and from
a Parity of Reasoning was afterwards
made use of by the *European* Physicians
in the Venereal Distemper. *Andr. Ca-*
salpin, Lib. IV. *de Morbo Gallico*, has
the following Words: *Simile ratione*
sanat inunctio ex argento Viro. Reme-
dium desumptum ex Mesue, qui eo ute-
batur ad scabiem crassam. For the same
Reason 'tis that a mercurial Uction doth
heal; a Remedy taken from *Mesue*, who
used it for the thick Scab. And likewise,
Fernelius de Luis Vener. curat per Hy-
drargyrum, Cap. xvii. *Hujus enim usum*
avi nostri ex Arabum Schola deducunt,
quos constat hydrargyrum ad Ulcera ma-
ligna & cacoethea coercenda, atque ad
scabiem omnem siccant feliciter usurpasse.
The Use of this our Ancestors had from
the *Arabian* Schools, who it is well
known,

known, made use of Quicksilver to conquer malignant and habitual Ulcers, and all Sorts of dry Scabs. *Jacobus Carpenfis* was the first who apply'd it in the Venereal Disease, immediately after the *Neapolitan* Expedition, by *Charles VIII.* King of *France*; from that Time the Distemper was called *Lues Venerea*; and *Jacobus Carpenfis* used Mercury with so good Success, that in a very little Time he acquired an immense Estate; for besides a great deal of Plate, he left four hundred Thousand Ducats to his Heirs, which he had all gotten by vending a mercurial Ointment. Some say a *Jew* from *Lisbon* discovered its Use in the Venereal Disease by chance. However, Mercury came soon so much in Vogue, that it was look'd upon as an undoubted Specific in that Disorder.

But this noble Medicine falling into the Hands of unskilful Empyricks, it lost greatly of its Reputation, by reason of the Mischief done by it; wherefore many exclaimed against it as a dangerous, nay, poison-

poisonous Medicine, not fit to be applied to any human Body. Especially *Fernelius*, in the aforesaid Treatise, where he declaims against it as a poisonous Drug. And *Joan. Varandæus*, *De Lue Vener.* also mentions Mercury as a very suspicious Medicine, not fit to be given, without a great deal of Skill and Precaution.

Then the Chymists went to work in order to correct its deadly Quality, by actual and potential Fires; how well they have succeeded, I leave any one to judge. And some finding the Chymical Preparations, being much clogg'd with Salts, very violent upon the human Body, by a constant, long continued Fire, calcined it, which is called *Mercurius præcipitatus per se*. But this also being found a very rough Medicine, perhaps on account of the fiery Particles adhering to it, were for throwing by all Preparations, and resolved to give it without any previous Preparation internally, but not without joining *Aloes*, *Rhubarb*, *Colocynth*,

cintb, *Diagrid*, or such like Medicines with it, to purge it off again. Even the famous *Bellosto*, who so mightily recommends Mercury in substance, mixes some gentle Cathartic with his Pills. Of the like kind are the *Pillulæ Barbarossæ*, or *Ceruleæ*, from *Hercules Saxonia*, the *Pillulæ de Hydrargyro Horstii*, and others.

A very noted way of giving Mercury in Substance is the *Æthiopia Mineralis*, prepared either with or without Fire. Dr. *Cheyne*, in his *Treatise de Febris*, is of Opinion, it enters the Blood in such quantity as to ouze out thro' the Pores of the Skin ; of which he mentions an Example from his own Experience. How much Deference soever may be due to that learned Gentleman's Judgment, yet the common Opinion of the Moderns is, that it enters the Lacteals no more than the Testaceous Powders, by reason that the mercurial Particles are render'd too gross by the Adherence of the Sulphur ; or that if the Sulphur should be separated from

from the Mercury in the first Passages, it would run together again, and thus also be incapable of passing.

After these many Revolutions, Mercury comes at last to this Preferment, that a late Author thinks it a quite harmless Medicine, and recommends it for an Asthma, Pains of the Stomach and Intestines, the Gravel, Stone, Barrenness, Phthysick, &c. taken crude, the Quantity of an Ounce Mornings and Evenings.

Though there is no doubt this Practice, which many Thousands at present follow, without proper Precaution and Advice, will fall by the Prejudice People will receive from it, yet the sooner its Progress is stopt, the more Mischief will probably be prevented. Therefore, as the Reader has been acquainted with the Nature of the Metal, I am to tell him now, that some of the Mercury must absolutely get into the Blood, else it could not produce such Effects, as some have perceived from it. And as some have salivated by
taking

taking crude Mercury after the present fashionable manner, it is indisputably true, that some of the Mercury mixes with the Blood. *Etmuller* observes also, that a Person, who had taken two Pounds of crude Mercury for a *Passio Iliaca*, did salivate.

The Author mentions a Gentleman at *Ebsham*, was cured by it, of an Asthma, and it cannot be disown'd, that several others have been relieved from that Complaint. Now an Asthma proceeds from a viscid Blood or Serum, which hinders the Motion, or Enlargement of the Vesicles of the Lungs ; and as by that Means the Passages are straitned, the *Aspera Arteria*, *Arteria Pulmonalis*, and *Vena Pulmonalis*, are greatly depressed ; by which means Inspiration is chiefly impaired ; Inspiration seldom, unless the Liver or Spleen be schirrhous : Therefore 'tis plain, that if Mercury acted only as an Absorbent, as some pretend, it could not be so effectual in Asthmas.

Some have imagined that so considerable a Quantity circulated with the Blood, that they fancy'd they found some in Chamber-Pots. *Platerus* mentions this in his Observations; but it is probable it might be a female Case, and had dropt from the *Anus*. For many have weighed the Mercury when voided, and found (I suppose with an Allowance of a few Grains, which are hardly taken notice of in an Ounce) the same Quantity again. Which Experiment contradicts that Supposition, not to mention many Reasons which might be alledged to the contrary.

We have already observed, that some Particles of Mercury enter into the Blood to cause those Effects, therefore it will be expected I should give some Account how that is performed: *Hoc opus hic labor*. And as no Author has as yet explained this Point, I may, perhaps, meet with many Objections; wherefore as I advance my Opinion, with Submission to superior Judgments, I hope the Publick will think

think well of mine, 'till a better is produced.

Some think, that when the Mercury is long detained in the Body, some of the Mercury is squeezed into the Lacteals; which Particles, however, must be so small, as to be suspended in the Chyle; and cannot be in such Quantity as some imagine; else they would unite in the *Receptaculum Commune*, and be incapable of producing any visible Effect in the Body. But this Hypothesis meets with this Difficulty, that in order to force some Mercury into the very narrow Orifices of the Lacteals, the Mercury ought to be confined, and pressed hard; which not being practicable in the Intestines, it is thought difficult to conceive. The most probable Method therefore to account for this Phænomenon, is the following.

Considering the Nature of Mercury as above-described, it is not difficult to conceive, that when it comes into the Stomach, it is there acted upon by the Salts in the Juices of the Stomach; which with

the Assistance of the natural Heat of the Body, and peristaltic Motion, as also the continual Action of the pectoral and abdominal Muscles, cannot but dissolve some Particles of this Metal. The same Operation is continued through the whole Canal of the Intestines, and there will be more or less of the Mercury dissolved, according to the Proportion of the Salts contained in the Juices.

This Theory is proved by a common Experiment ; which is, that human Spit-
tle will fix Mercury so far, as to deprive it of its running Quality. The Reason is, because the Salts of the Spittle stick to the Particles of the Mercury, and deprive them of their Sphericity, in which their Agility consisted. And if we farther cast our Views back upon the Experiment of a Solution of some of the Mercury with Water only, void of Salts, we may easily conclude that of an Ounce of Mercury taken crude, there may be dissolved in the *prime via*, and carried by the Lacteals into the Blood, at least 3 or 4 Grains,
pro

pro rato, according to the Disposition of the Juices: And this continued for 5 or 6 Weeks, twice a Day, will amount to about $\frac{3}{4}$ of an Ounce of the finest and most active Particles of Mercury, sent at random into the Body, to do there what Execution Chance shall direct them.

To prevent any ones Surprize at this Doctrine, I put the Reader in mind of a much harder Substance, which undoubtedly is dissolved by the Juices of the first Passages, *viz.* Steel, or Iron, which daily is given in Substance with great Success.

Hear the learned *Hoffman*, in his Dissertation *De Metallurgia morbifera*, what the Spirit, or most subtle Parts of this Metal is able to do. This Spirit, says he, which is able to dissolve most Metals, penetrates through the whole Frame of the Body, and forcing its way through the smallest Passages, it powerfully dissolves the thick Juices, tears the Contexture of the Blood asunder, and divides the *prima Stamina* thereof. It
also

also irritates too much the Membranes, Nerves, and Fibres, and squeezes the Vessels placed between them, so that strange Humours may easily lodge there; from whence ensue Rheumatisms, Effusions of Lymphæ, Palsy, great Weakness, and violent shakings of the Nerves. The hurtful Steam of Mercury doth not spare the Bones themselves; for the Teeth become loose and carious. By its Ponderosity, it as well attacks the Solids as the Fluids. And lastly, Mercury has a particular Faculty of attracting the Points of Salts, and retaining them closely, whose Powers being combined, their Activity is augmented, whereupon they corrode or tear, or, at least, violently irritate the Fibres of the Stomach, whence Convulsions, Hemorrhages, Inflammations, Gangrenes, and deadly Suppressions of the Excrements.

Gerardus Goris, in his *Mercurius Triumphator*, says, that all those who dig up Mercury, or work it in the Fire, are subject to horrid Weaknesses and Tremblings

Tremblings of the Nerves. All such Miners are of a livid Colour, and soon fall into a Palsy, or Convulsions, and lastly, are suffocated by an Asthma: And even the strongest Men cannot live, in this Work, above four Years, but die most miserably. In *Italy* the Mercury Miners work but six Hours in a Day, and yet they soon grow paralytick, and die of a hectic Fever. In *Hungary*, some Mines cannot be work'd at all, on Account of the Mercurial Steams, which suffocate most that come near them. A certain Labourer, who had work'd in the Mines only six Months, was so full of Mercury, that when he took a Piece of Gold into his Mouth, or rub'd it with his Fingers, it became white, like Silver; and he was so infirm, that with both his Hands he could not bring a Glass of Beer to his Mouth without spilling. Gil- ders, Looking Glass-makers, Chymists, Painters, and those who in *Peru* separate the Gold and Silver from mineral Drofs, by means of Mercury, are expos'd to the like Inconveniencies.

I foresee it will be objected, those Authors speak of the mercurial Exhalations of the Mines: But pray what Difference is there, whether the finest mercurial Particles are convey'd into the Blood by the *Primæ Viæ*, or the Lungs. All that can be said, is, that perhaps, the modern Quicksilver-takers do not receive so great a Quantity of these Mercurial Particles, as those that work in the Mines; and as the Quantity is less, so the Operation may be less pernicious, tho', at the same time, the Mercury will operate in them in the same manner in Proportion.

Another Objection is, that as these Particles are diluted by the Juices of the Stomach and Intestines, their deleterious Faculty is thereby blunted. But as by means of the Salts in the Juices they are qualify'd to be carry'd into the Blood, they may attract in the Process of circulating in the Blood and lymphatic Vessels such a Number of Spicula, as to become at last of a corrosive Nature, and being grown too bulky to pass through the capillary Vessels,

sels, may cause Obstructions, and consequently paralytic Disorders or Tremors; or if an Erosion should happen, especially in the small Vessels of the Brain, may occasion an Apoplexy and sudden Death: And as we are not sure that in all Bodies these mercurial Particles will go off by Perspiration or otherwise, we may always expect some such Effect at the end.

It will be further objected, that great Benefit has been perceived from this Practice in Asthmas. This shews then plainly, from what I said before concerning the Theory of an Asthma, that the Mercury must act very vigorously. And granting this, let us suppose this Action had been exerted in the very small Vessels of the Brain, or in some of those which creep round the Nerves, what dismal Disorders might not there have been produced? So that this good Effect in Asthmas is owing to a particular Idiosyncrasis, or State of the Body or Chance, which no Man in his Senses could run the risque of, when so great Evils might possibly happen.

But the grand Objection of all is, that if Mercury is of so dangerous a Nature, why doth it not, when convey'd into the Blood in great Quantities, as is done in a Salivation; produce likewise all those dismal Effects, I talk of; rather in a greater Degree?

To this I answer, that Mercury, in Salivations, doth cause very violent Effects; for which Reason Persons of broken Constitutions, and many others, are judged incurable, not being capable to undergo the Operations of Mercury, lest it should prove fatal to them. Most Authors and Practitioners agree, that 'tis very dangerous to salivate Persons whose Viscera are not sound, or if their Substance is infected with this Distemper; as also those who are scorbutick, hypochondriac, or subject to the Epilepsy, Convulsions, Vertigos, Tremors, &c.

Besides, the Body is generally prepared for Salivation by Bleeding and Purging: Warm Baths are also by some ordered, to supple the Parts, and render them yielding.

yielding and pliable. Notwithstanding all these Precautions, very dismal Symptoms often attend it; as Fevers, violent Cholics, Diarrhæas, Dysenteries, Swellings and Erosions of the Glands, terrible Head-achs, Vertigos, Tremors, Deliriums, Convulsions, and often Death closes the Rear.

For this Reason no body ventures upon a Salivation without a skilful Assistant. But that Mercury, thus thrown into the Body, doth not produce the same Effects, as by the modern Way of taking it, is because it doth not penetrate so far, therefore cannot lodge in the Parts where the Scene of those Symptoms lies: For neither the Particles of the Mercury, when convey'd into the Body by Unction, nor those of Calomel, or any other Preparation, can be imagined to be so small as those prepared by the fine Salts of the Body. That the Mercury in a Salivation does not enter into the *Minima*, is plain from its not proving an infallible Remedy in

the Pox, nor curing paralytick Disorders, which are said to proceed from Obstructions of the small Vessels that wind about the Nerves; but that Mercury, when dissolved into a Vapor, or its *Minima*, penetrates there, is seen from its Effect upon Miners, Gilders, Looking-Glass Makers, &c. Besides, the Mercury causes the Juices so to gallop about in the Salivation, that by reason of the Tension of the greater Vessels, the smaller are so contracted, that they grow too narrow to admit the Globules of the Mercury; for which Reason a very high Salivation is not accounted a secure Way of curing a Pox.

And, lastly, after the Salivation is over, Care is taken to bring away all the Mercury by proper Evacuations; and if any should remain, which sometimes happens in some weak, distemper'd Part, it will not fail causing Pain; or, according to the Nature of the Part, the Mischiefs *Fernelius* and others mention.

I should also take notice of the famous *Monpelier* Practice, of curing the Pox by Mercurial Plasters or Ointments, without Salivation: But as this is only a kind of Uñction in a less Degree, because it sometimes causes Salivation, therefore the same Answer will serve in this Case.

And the Difference there is in the Operation of Mercury, when it acts as in its *Minima*, or in grosser Particles, is plain from the Mercurial Girdle, which frequently causes Tremors, Convulsions, and Palsies; whereas ten times the Weight of Mercury, convey'd into the Body by Uñction or internal Medicines, would not have caused the like Effect.

Fernelius, speaking about the Use of Mercurury, says, that some after they had used it had been subject to Vertigos, some were grown mad, others remained with a Tremor of their Hands, Legs and Body, that they could hardly walk. He tells you afterwards the following Story, which, if he were not an Author of good Credit, I should scruple relating it after him.

him. I'll translate it for the Ease of the Reader. A Person who had been well ten Years, after the Use of Mercury, perceived a great Pain in his Forehead, which continuing a long time, the *Cranium* began to putrify, and drop away by bits; then the Meninges and the Brain it self suppurated, from whence a great Quantity of *Pus* issued forth, for several Months; as also from the Angles of both Eyes: All his Teeth dropt out. He had no Fever, nor any considerable Nauseating; but when the Ulcer reach'd the Ventricle of the Brain, the miserable Wretch died in great Torment.

Trallian found in several Bodies he dissected, a considerable Quantity of Mercury in the *Cranium*, and Joints of the Shoulders and Arms. *Georgius Garnerus* opening the Head of one who had taken Mercury, found some running Mercury in the Ventricles of the Brain. *Fallopins* says, he saw Persons who had been anointed with Mercury four Years before, and upon their getting gummous
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Excrefcencies in the Forehead and Shins, the Bone being laid bare, he found ſome Mercury collected there. And Authors are full of Stories of this kind; which I own may, in great meafure, be owing to the Unſkilfulnefs of the Perſon who conducted the Operation. However, it proves this, that Mercury lodged in the Body, will not always come away, but ſometimes remain there, and cauſe diſmal Symptoms, and often many Years after. For after Salivation, tho' it be performed with all the Skill imaginable, and when all is over, Sudorifics and Cathartics are given to evacuate the remaining Mercurial Particles, yet notwithſtanding all theſe Precautions, ſome Perſons remain with a fix'd Pain in ſome Joint or other; doubtleſs from Mercurial Particles lodged in the Capillaries thereabouts.

J. Varandæus, when he ſpeaks of Mercury, gives theſe Cautions concerning the uſing of it. It ought not to be given, ſays he, to old Perſons, to Paralytick,

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or those who have weak Nerves; nor to those who are subject to Quincies and Fevers, or to Persons of a thin Habit. By which he means, that Mercury is pernicious to all whose Viscera are not sound and strong; and when I think on it, that many under the forementioned Circumstances do gorge down Mercury, I am in a Maze at their Rashness.

But to be a little more particular upon those Cases. Old Peoples Viscera are decay'd, many of their small Vessels are worn out, and others obstructed; if Mercury is convey'd into such a Body, what can you expect but Erosions and Tearings, or Oppilations of the Capillaries, from whence Hæmorrhages, local Aches, paralytic Disorders, and if the Scene of Action is in the Brain, Loss of Memory, and the intellectual Faculties, Apoplexies, nay, Madness itself.

Think not I am speaking only of those who are 60 or 70, or more Years old: No, when the Body is worn out, the

Person is justly rank'd among the Old: And therefore some very young Persons, old in Constitution, ought to take Mercury with as much Caution, as those older in Years. I must carry this Consideration yet farther, and tell you, that one particular *Viscus* not being right sound, tho' the Body appear to be strong and vigorous, innumerable Evils may be brought on by the violent Operation of Mercury, when least expected. Besides, the Globules of the Blood are less solid in these Persons, and by the Force of Mercury will be yet more divided, and rendred incapable of resisting the Impulse of the Solids, from whence hectic Disorders must necessarily ensue.

I remember the Story of a Person who did not care to stir out of his Bed for fear of wrenching or tearing some capillary Vessel of his Body; and indeed I should not have thought his Apprehension very ridiculous, if he had been taking of Mercury for five or six Weeks, after the modern Way.

The above-mentioned *Varandæus* admonishes also those who are subject to Quincies, Fevers, and of a thin Habit, to be cautious how they use Mercury. It is known by every body, that the Use of Mercury causes a great flooding of Lymphæ into the Glands of the Mouth, and the Fauces; and therefore, those who are subject to Obstructions in those Glands, as Persons who often have Quincies, ought not to run the risque of bringing them on by Mercury. Persons who often have Fevers, should be jealous of Mercury, because it occasions a great Agitation of the Solids and Fluids, and therefore may easily cause Fevers, which is one of the Reasons why *Cheyne* thinks Mercury not safe in the Cure of them.

As for thin Habits, they are commonly inclinable to be hectic, and as Mercury increases the Velocity of the Blood, irritates the Fibres, and promotes the Secretion and Excretion of Lymphæ, it cannot be good or safe for those who have none to spare. In

In a most particular manner I would admonish those, who are subject to any Disorder of the Head, of what Denomination soever, to be shy of this way of using Mercury, lest they repent when 'tis too late. As Mercury is a confessed Enemy to the Nerves, it is so of consequence to the Brain, and therefore those who labour under any Complaints owing to the Brain or Nerves, may expect to grow worse from this way of using it.

I know very well, Mercury is often given in some Complaints of that Nature, but not in this Form, nor without the Precaution of increasing the Secretions at the same time, to carry it off one way or other; and even, that paralytic Disorders have been attempted by Salivation, but with what Success, let Experience declare.

Many Cases of this Nature might be produced here, but these may suffice to warn the unwary; and, if they do not, as many more would not be enough. However, I may occasionally say some-

thing more to this Purpose, when I come to examine the Cases Mercury is recommended in.

Hitherto we have considered what mischief Mercury, thus lodged in the Body, may do in the remoter Parts of it. Let us now view it in the *Primæ Viæ*.

The Intestines are generally computed to exceed six or seven times the Height of Man; and as the Cavity they lie in is not very large, they have various Turnings and Windings, both sideways, upwards and downwards, to be fitted to the Place. That the Aliments and Fæces are carry'd up and down, backwards and forwards, is a good Instance of the surprizing Operations of Nature. This is performed by means of the peristaltic Motion of the Intestines, the Fibres moving forwards from the Stomach down to the *Anus*, through the whole Canal of the Intestines, like a Skrew; by this means the Intestines are contracted, and the Action of the pectoral and abdominal Muscles in Inspiration and

and Expiration, as also the Pressure of the Diaphragma assisting at the same time, the Aliments and Fæces are continually squeezed in the Bowels, and by the Skrew-like, or peristaltic Motion at last, protruded to the Extremity, the *Anus*. The Valves of the Intestines hinder the Contents from falling back, when moved upwards; especially, that considerable one at the Beginning of the Colon, placed there to prevent the coming back of the Excrements into the Ileum, when they are to ascend into the Colon.

Thus the Protrusion of the Aliments is accounted for. But it is more difficult to demonstrate how so slippery, and ponderous a Body as Mercury, doth pass thro' the many Turnings and Windings of the Intestines; which, if we did not know it from Experiments, we should hardly believe. However, this deserves the Consideration of our Quicksilver-takers. They should pause a little and think, that if the Intestines are not very
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sound and firm, and the peristaltic Motion very strong and active, it cannot be very safe to load them with so ponderous a Substance. If the Mercury should press upon any decay'd Part of the Intestines, I mean, where the Coats or Membranes are less strong and firm, it may so stretch them, as to cause violent cholic Pains ; nay, an Inflammation, or Gangrene of the Bowels it self. And who can assure us, that by this means even a Rupture of the Guts may not happen ? Or if some of the Mercury should be lodged in the *Appendix Vermicularis*, or blind Gut, which hangs down like a little Bag, from the Beginning of the Colon, and the End of the Ileum, it may there in time acquire a corrosive Nature, and destroy the Substance of that Bowel : The Consequence of this is not difficult to guess ; after long Cholics, and a constant lingering Pain in the right Iliac Region, it must end in Death.

As the Action of the Fibre is augmented, in proportion to the Force or
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Pondus of the Body impelling upon it, hence it follows, that Mercury may occasion Spasms, and violent Gripings in the Bowels, &c. especially in Bodies whose Fibres are in a sufficient State of Tension. And if what *Baglivius de fibra motrice*, and *Hequet de purganda medicina*, affirm, that our Bodies are more disposed for Tension than Relaxation, is true, the Danger is the more considerable, and oftner to be apprehended.

From this same Principle Mercury may also cause too quick a Protrusion of the Aliments thro' the intestinal Canal; and so hindering a due Separation of Chyle, the Orifices of the Lacteals being likewise too much contracted, by reason of the Tension, bring on an Atrophic, Hectic, and Consumption. By scouring the Intestines too much of the *Mucus Intestinalis*, Mercury may also occasion a Lienteria, Diarrhæa, and Dysenteria.

I might enumerate many more bad Consequences, that probably may attend
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the taking of crude Mercury : But I am persuaded that whosoever reads this, with Attention, will not pour down into his Guts so precarious an Agent, without good Advice ; and those who have done it already, will tremble at the Thought of it.

The ingenious and learned Gentleman who recommends this Practice, does not favour the Public with any Rationale of the manner of its operating in the human Body, neither does he take notice of any harm it can do there ; if he had, I am sure there would not be such a Number of People, who now, or hereafter will, too late, repent the taking of it. Whatever may have been his Reason for it, I leave the Reader to think ; for my part, I dare to affirm this, that some Nurseries, and even the Grave-diggers, are obliged to him for it.

Come we now to consider the Cases wherein the Author recommends crude Mercury. I do this not by way of criticising

ticising upon his Treatise, but to caution the Public in regard to this Practice.

He recommends crude Mercury in the Asthma, Phtyfic, or Consumption from distemper'd Lungs, the Stone, Barrenness, and the Diseases of the Stomach and Intestines.

As an Asthma, or Difficulty of Breathing, proceeds from different Causes, so there are also various Degrees and Stages of it. It proceeds from *Pus*, thick or mucilaginous Juices, or Polypuses in the *Bronchia*, or Vesicles of the Lungs. The only Way Mercury helps such Asthmas, must be by scouring and cleansing these Parts from their Infarctions. But if this Matter is grown very tough and hard; if Polypuses and Scirrhuses are formed, it cannot be expected Mercury will relieve, but rather aggravate the Case. If the Vesicles of the Lungs are grown hard and dry, or if disposed for Corruption, pray what will be the Consequence from the violent Impulse of the mercurial Globules, but total De-

struction? Or if the Asthma should proceed from Consent of some neighbouring Part distemper'd, or from too great a Plenitude, or a natural Conformation or Adherence of the Lungs, 'tis easy to perceive we may expect much harm from the Use of Mercury, inconsiderately apply'd. Therefore, tho' Mercury may be good in some Asthmas, by cleansing the first Passages of the viscid Flegm, which supplies the Infarction in the Lungs, a great deal of Mischief may be done, by giving it promiscuously.

After the Author has described a Consumption or Phtyfic, in which he says the Patient complains of a Soreness in his Breast, Difficulty of Breathing, Loss of Appetite, a great Heat and Dryness in the Palms of his Hands, with frequent and sudden Flushings in his Face; *observe well*, after, I say, he has given a Receipt to cure this Disorder, he concludes,
“ and I have of late experienced that
“ Quicksilver is the most beneficial Thing
“ in all the World for the Lungs, taking
“ one Ounce every Morning.” I

I must own it would be putting an Affront upon the Doctor's Judgment, to appeal to Miners, or Gilders, &c. after his *ipse dixit*; else, I am sure, they would unanimously affirm the contrary, from woful Experience. Besides, the mercurial Particles, from the above Theory, must necessarily increase the hectic Heat; one of the chief Complaints in this Disease.

He recommends Mercury also in the Stone. After having discanted upon the Stone, or *Nephritis*, with some Remedies for it, he says, *but you may please to try one Ounce of Quicksilver every Morning for one Month: I have known this do Wonders.* Sure he cannot mean it will break or dissolve the Stone in the Kidneys, Ureters, or Bladder; Then it must be, that the Doctor means, it will cleanse those Vessels from their *Saburra*, and also prevent its Return. But this also is very hard to account for: If any considerable *Quantity* of Mercury could reach those Passages as easily as

the *Prime Viæ*, this Assertion would bear a good colour of Truth; but as it has not been demonstrated yet, that any visible Quantity of Mercury comes away by Urine, I must beg leave to keep in Suspense, till I am better convinced.

Moreover, in all Complaints of the Stomach from Indigestion, an Ounce of crude Mercury is also recommended. I hear some have improved this Theory, and without taking the Trouble to go to the Druggists for Mercury, they swallow any little Pebble or Pebbles they find in their Walks. If Mercury is to act as a Scourer and Cleanser, I can't help thinking a Pebble will perform that Office better than Mercury, this being of a globular Form, the other having commonly many Angles; and if, by way of an Absorbent, Crabs-eyes will answer the Purpose better, and with less Risque.

I cannot forbear taking notice of the Doctor's Assertion, very grand indeed! which is, that *Quicksilver never did any harm.*

harm. Because, says he, *what gives offence to Nature, is the Spiculæ, Points or Edges; Quicksilver always retaining a globular Figure.* Now as I have endeavoured to prove above, that Quicksilver doth not always retain a globular Form in the Body; and that besides, the Particles of Mercury must necessarily, in circulating with the various Juices of the Body, attract many *Spicula*, and according to the Habit, sometimes prove very detrimental; I therefore must beg leave to say, that I think this Assertion is confuted by Reason and Experience.

After we have thus shewn the Reason why Mercury may do much Prejudice when misapplied; we come, lastly, to corroborate this Theory from Facts. Was it possible to know all the Cases where it has been detrimental, I don't doubt but we should find all, or most of those Consequences I mentioned, to attend this inconsiderate Practice. I candidly have owned it has done, in some Asthmas, singular Service: But as
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the Town is already sufficiently prevented in favour of it, I hope. I shall not be thought partial for saying no more on this Head; my chief View being to caution People not to run any risque. To sum up the whole: The present practising Physicians of this Town, who without all Dispute are a Set of the most learned and judicious Men in *Europe*, all agree, that Mercury hardly procures any visible Advantage, but in Asthmas only.

And even here it may do mischief; witness, a certain Gentlewoman, who had an Asthma, with which she expectorated very plentifully: After she had taken Mercury some time, she ceased to bring up any Flegm; her Asthma was converted into a dry and convulsive one, and she too late wished for her old Asthma again.

It has been found, that this way of taking Mercury will bring on a Salivation; an undeniable Proof that some of it enters the Blood. Tho' this does not
happen

happen very frequently, yet, as no one is sure it will not be his Case, I leave the Reader to think to what Danger such Persons are exposed; since any, the least Cold, is fatal in a Salivation; occasioning violent Fevers, Inflammation of the Jaws, Cholics, Dysenteries, &c. Or if it only increases the insensible Perspiration to a great Degree, as some pretend, Colds will produce analogous Disorders, tho' in a less Degree. This, I am apt to believe, has been the Fate of several who got violent Fevers, Pleurisy, and other inflammatory Disorders, whilst they were following this Course. Such Cases are not uncommon, if People will but own the Truth. And I am informed that a certain Knight, who lately died, knowing this to be his Case, professed to his Friends, during his Illness, that he had brought it upon himself by taking of Mercury. And surely such Fevers must be more dangerous, the Globules of Mercury increasing the Velocity of the Blood's Motion, as has been proved above.

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Some have been taken with a violent Spitting of Blood, of which two Persons lately died suddenly. And a Gentleman, who had a Mind to be in Fashion, upon taking some crude Mercury, was flung into a Bloody-flux, which obstinately baffled all the Skill of a very eminent Physician of this City, who after he had try'd all the *Materia Medica* can afford, was fain to tell the Patient he could do no more for him, and to relinquish him to Fate.

A Gentleman came to *Bath* last Summer, for a paralytic Disorder in both his Arms; for which he consulted a noted Physician of the Place, by whose Advice, and the Use of the Waters, he was considerably relieved: And Mercury coming at that time much into Vogue, some body ask'd him, why he did not take Mercury, which had done wonderful Cures? Whereupon the Gentleman, without telling his Doctor of it, took some; but soon experienced, to his Sorrow, its sad Effects; for he relapsed,
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and his Lameness became worse than before: An evident Proof how prejudicial it is to the Nerves.

This brings me to mention a Case of one, who, after he had been taking Mercury for some time, lost his Senses, and has been several Weeks under the Care of a Physician, deservedly famous for this kind of Disorder. He had never had any Symptoms of Madness before, neither are any of his Family subject to it. Some pretend that Grief for the Loss of a Relation was the Cause; but it was never suspected, by those who conversed with him, his Sorrow would produce any such Effect. Others say it could not come from the Mercury, he having left it off some time. But, according to my Theory, the Effect might shew it self some time after, some Particles of the Mercury remaining lodged in those Parts subservient to the rational Faculties. The Fact is true; the Person took crude Mercury, and he

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lost his Senses : And if there is but a bare Possibility for such a Catastrophe, I defy any one to pour Mercury down unadvisedly, without trembling for fear of such dreadful Consequences.

A Gentleman of a very good Estate in *Essex*, who had been formerly a Linen-Draper, having taken Mercury with good Success for an Asthma, extoll'd the Excellencies of it to all his Acquaintance. After he had used it for about a Year, his Asthma being almost cured, he drop'd down dead suddenly in the Vestry. Another Mercury-taker, not far from *Stocks-Market*, died also not long since of an Apoplexy. And I leave it to farther Observation, whether the late Increase of sudden Deaths, is not in some measure owing to this Practice.

A Gentleman in *Tooly-street*, took Mercury for a Pain in the Small of his Back, supposed to proceed from the Kidneys. He grew easier of his Pain, and rested better at Nights than before ;
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but his Legs broke out in great Blotches, covered with Scurf, which terrified him so, that he sent for a Physician and Apothecary, under whose Hands he continued some time, but has not thought proper to venture upon crude Mercury again.

A very worthy Gentleman of *Cook's Court*, took Mercury for an Asthma, but died soon after of a violent Fever; which all his Friends unanimously impute to this imprudent Practice.

These Cases may suffice at present, since I hope to have another Opportunity to be more ample on this Subject. I cannot dismiss the Reader without admonishing him, very seriously, to be cautious how he meddles with this dangerous Remedy. No Medicine upon Earth is good at all Times, and in all Persons; and a powerful Drug may as well do much Harm as Good, according as it is applied. I have proved, that crude Mercury may possibly be prejudicial in the first Passages, and, when convey'd into the Blood, exert its Power in a
most

most dangerous manner; and confirm'd it by Facts, the Truth whereof is incontestible. And by this time, I flatter my self, the Reader is convinced that crude Mercury is a dangerous Medicine, and cannot be good in all Cases; which is the Point I have endeavour'd to make appear.

F I N I S.

